AKDENIZ UNIVERSITY

Computer Engineering Department

CSE 211 Digital Design (2024-2025 Fall)

Lab01 - Digital Logic Gates – 14.10.2024

	Student No	Student Full Name	Group No
1			
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Lab Study 1

In this experiment, you will work with logic gates from the following integrated circuits: 7404 (NOT), 7400 (NAND), 7408 (AND), 7432 (OR), and 7486 (XOR). The pins labeled A and B will serve as inputs, while the pin labeled Q will be the output.

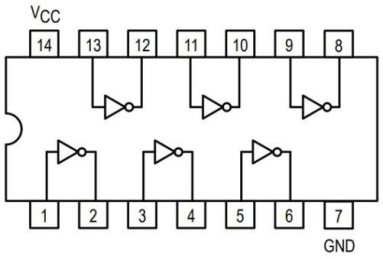
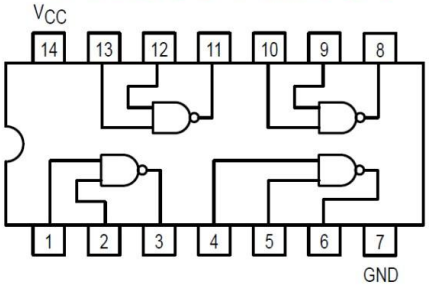
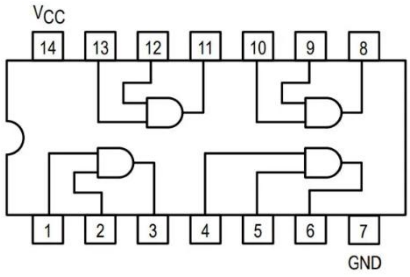
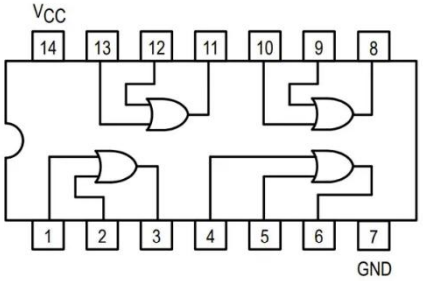
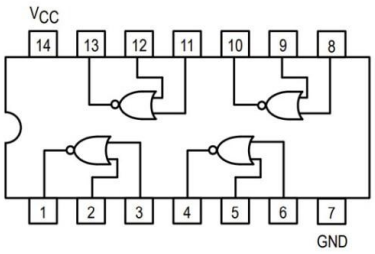
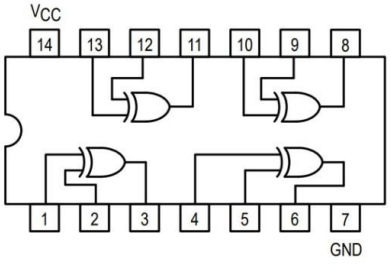
Using the switches corresponding to A and B, you will apply logic levels (0 and 1) to the gate inputs and observe the output behavior. Additionally, you will incorporate the 7404 (NOT) gate, where pin A will be used as the input and pin Q as the output. Apply the specified input conditions to these gates and carefully record the resulting outputs in Table 1.

Ensure to fill in Table 1 with the correct truth tables for each of the logic gates tested.

Table 1 - Truth Table of Logic Gates

A	B	Q1 (NOT)	Q2 (NAND)	Q3 (AND)	Q4 (OR)	Q5 (XOR)
0	0					
0	1					
1	0					
1	1					

LOGIC GATE PINOUTS

NOT Gate **74LS04 Pinout** 	NAND Gate **74LS00 Pinout** 
AND Gate **74LS08 Pinout** 	OR Gate **74LS32 Pinout** 
NOR Gate **74LS02 Pinout** 	XOR Gate **74LS86 Pinout**